

Remarks

Claims 1-7, 9-10 and 11 are canceled herein. Canceled claim 2-7 depended from canceled claim 1. New claims 60-66 are added herein. New claims 60-65 are directed to the subject matter previously encompassed by canceled claims 2-7, respectively, but depend from claim 8. New claim 66 is added to depend from claim 8, and to be directed to subject matter previously encompassed by canceled claim 11.

Claim 8 is amended to be in independent form. Claims 12-14, 16, 18-19 and 22 are amended to correct dependency. Claims 17 and 21 are amended to correct form. Following entry of this amendment, claims 8, 12-22 and 60-66 are pending.

No new matter is added. Reconsideration of the subject application is respectfully requested.

Allowable Subject Matter

Claim 8 was noted to be free of the prior art of record, and was considered to be allowable if written in independent form. Claim 8 is amended herein to be in independent form. Claims 12-22 and 60-65 have been amended to depend from claim 8, or a dependent claim thereof. Thus, Applicants submit that claims 12-22 and 60-65 are in condition for allowance, which action is requested.

The Office action, dated October 3, 2003 (see page 4), stated that the restriction requirement between the linked inventions (Groups 1-21) was subject to the non-allowance of the linking claims. Thus, it is the Applicants' understanding that if claim 8 (directed to oligonucleotides of at least about 16 nucleotides in length, having a nucleic acid sequence represented by the generic formula set forth as 5' X₁X₂X₃ Pu₁ Py₂ CpG Pu₃ Py₄ X₄X₅X₆(W)_M (G)_N-3', wherein the central CpG motif is unmethylated, Pu is a purine nucleotide, Py is a pyrimidine nucleotide, X and W are any nucleotide, M is any integer from 0 to 10, and N is any integer from 4 to 10) is considered to be allowable, the subject matter of the remaining groups (species) will be rejoined.

As a generic linking claim is noted to be considered to be allowable in independent form, it is the Applicants' understanding that the restriction requirement (election of species) between Groups 1-21 will be withdrawn.

Confirmation of Telephone Conference

Applicants thank the Examiner for the helpful telephone conference of March 9, 2004, wherein the allowable subject matter was discussed. As discussed with the Examiner, in order to obtain rapid allowance of this application, and to expedite the issuance of a U.S. patent, the claims have been amended to be limited to the subject matter considered to be allowable to the Examiner. Claims 2-7 were also discussed with the Examiner. Claims 2-7 depended from claim 1. In order to expedite allowance, claims 2-7 have been canceled and new claims 60-65 have been added. Claims 60-65 are added to include the subject matter previously recited in claims 2-7, but depend from allowable claim 8.

During the telephone conference, the Examiner indicated that the prior art of record had all been considered. However, the Examiner indicated that the U.S. Patent and Trademark Office's file did not have copies of the references cited in the Information Disclosure Statement submitted on April 30, 2002. The Examiner's requested that Applicants submit an additional Information Disclosure Statement including additional copies of the references originally cited on the Information Disclosure Statement submitted on April 30, 2002.

Information Disclosure Statements

The Office action states that claim 8 is free of the prior art of record. The Office action further stated that the U.S. Patent Documents and the Foreign Patent Documents cited in an Information Disclosure Statement submitted on November 13, 2002 have been considered. However, the form itself was not initialed as there was missing information regarding publication dates. Submitted herewith is an additional Form 1449, correctly listing inventor names and publication dates of patent documents of the patents cited on November 13, 2002, and stated to be previously considered by the Examiner. In order to ensure that these references will be cited on the cover of the issued patent, Applicants respectfully request that the Examiner initial and date this Form 1449, and return a copy to the Applicants. As these references are already of record, and have been considered by the Examiner, Applicants submit that no additional fee is due. However, in the unlikely event that the U.S. Patent and Trademark Office determines that the fee for consideration of this Form 1449 is due, Applicants request that the additional fees be charged to Deposit Account 02-4550.

As discussed with the Examiner, another Information Disclosure Statement/Form 1449 was submitted on April 30, 2002. As discussed with the Examiner on March 9, 2004, a signed copy of this Form 1449 was not returned with the Office action. At the Examiner's request, copies of the references, an additional Information Disclosure Statement, and an additional Form 1449 (listing references cited on April 30, 2002) were sent to the U.S. Patent and Trademark Office. This Information Disclosure Statement was submitted on March 11, 2004. In order to ensure that these references are also cited on the cover the issued patent, Applicants respectfully request that the Examiner initial and date this Form 1449, and return a copy to the Applicants.

Claims 1-7, 9 and 12-22 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent No. 6,207,646 (hereinafter the '646 patent). Applicants respectfully disagree with this assertion.

The Office action alleges that as the '646 patent teaches oligonucleotides including the sequence AACGTT (which includes a self-complementary sequence), oligonucleotides with the sequence Pu₁ Py₂ CpG Pu₃ Py₄ are rendered obvious. Applicants respectfully disagree with this assertion. Applicants note that as A is a purine and T is a pyrimidine the '646 patent discloses oligonucleotides with the generic sequence Pu-Pu-CpG-Py-Py. Thus, the '646 patent does not render obvious oligonucleotides including the motif Pu₁ Py₂ CpG Pu₃ Py₄ (as recited in claim 1).

Moreover, as noted in the Office action, the '646 patent does not teach the incorporation of a phosphothioate modified poly-G in any of the disclosed oligonucleotides. Applicants submit that absent the present disclosure one of skill in the art would not be motivated to include such a sequence in an oligonucleotide.

However, solely to advance prosecution and to obtain rapid allowance of the pending claims, claims 1-7 and 9 have been canceled. Claims 12-22 have been amended to depend from claim 8, or a dependent claim thereof. As such, Applicants submit that the rejection is rendered moot.

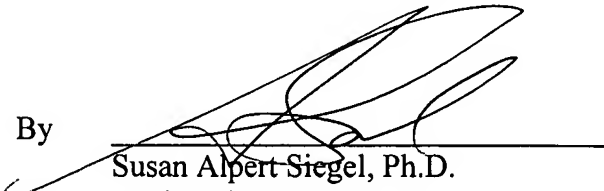
Conclusion

Applicants believe all of the pending claims are in condition for allowance. If any minor matters remain to be addressed before a Notice of Allowance is issued, the Examiner is requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

KLARQUIST SPARKMAN, LLP

By



Susan Alpert Siegel, Ph.D.
Registration No. 43,121

One World Trade Center, Suite 1600
121 S.W. Salmon Street
Portland, Oregon 97204
Telephone: (503) 226-7391
Facsimile: (503) 228-9446